

## DEPARTMENT OF TELECOMMUNICATION

SEMESTER	:VIII	NAME OF THE FACULTY	:Pooja Kenchetty P
BRANCH	: ECE	DATE OF COMMENCEMENT	:13/02/2017
SUBJECT	:Wireless Communication	DATE OF CLOSING	:02/06/2017
SUB CODE	:10EC81	CLASS STRENGTH	:102
NO. OF HRS/WK	: 5	TOTAL HRS	: 56

Session No.	Chapter no (No. of hrs. planed for chapter)	Date	Topics planned for the session	Teaching Aids	Assignments /Tests planned for the chapter	Topics covered As per plan
1	1/7	16/2/17	UNIT - 1 Introduction to wireless telecommunication systems & Networks	Board, chalk, duster		
2	2/7	16/2/17	History and Evolution of wireless cellular networks 1g	„		
3	3/7	17/2/17	Evolution of wireless cellular networks 1g	„		
4	4/7	18/2/17	AMPS (detail)	„		
5	5/7	18/2/17	Overview of 2Gsystem	Projector , Board, chalk, duster		
6	6/7	23/2/17	Overview of 3Gsystem	Board, chalk, duster		
7	7/7	23/2/17	Overview of 4G system	Projector , Board, chalk, duster		
8	1/8	2/3/17	UNIT - 2 Common Cellular System components	„		
9	2/8	9/3/17	Block diagram of SD & subsystem	„		
10	3/8	9/3/17	Base switching center and working of RBS	„		
11	4/8	10/3/17	Mobile switching Center, subsystem and working,	„		
12	5/8	10/3/17	Databases of cellular system, HLR,VLR,EIR,ILR,AUC	„		

13	6/8	11/3/17	Hardware and software, views of cellular networks.	Projector , Board, chalk, duster		
14	7/8	16/3/17	Cellular component identification.	„		
15	8/8	16/3/17	Call Establishment	Board, chalk, duster		
16	1/7	23/3/17	UNIT - 3 Wireless network architecture and operation, Cellular concept	„		
17	2/7	23/3/17	Cell fundamentals & Examples	„		
18	3/7	24/3/17	Capacity expansion techniques	„		
19	4/7	25/3/17	Cellular backbone networks	„		
20	5/7	25/3/17	Mobility management	Projector , Board, chalk, duster		
21	6/7	31/3/17	Radio resources & Power management	„		
22	7/7	31/3/17	Wireless network security	„		
23	1/8	6/4/17	UNIT - 4 GSM and TDMA techniques	Board, chalk, duster		
24	2/8	7/4/17	GSM system overview	„		
25	3/8	7/4/17	GSM Network and system Architectures	„		
26	4/8	8/4/17	GSM Network and system Architecture	„		
27	5/8	8/4/17	GSM signaling Model	„		
28	6/8	13/4/17	GSM channel concepts	„		
29	7/8	20/4/17	Mapping of logical channels	„		
30	8/8	20/4/17	GSM identifiers	„		
31	1/7	21/4/17	UNIT - 5 GSM system operation.	„		
32	2/7	21/4/17	Initialization Operations	„		
33	3/7	22/4/17	Traffic cases	Board, chalk, duster		

34	4/7	27/4/17	Roaming,	Projector , Board, chalk, duster		
35	5/7	27/4/17	Handover	„		
36	6/7	28/4/17	GSM protocol architecture	„		
37	7/7	28/4/17	TDMA systems	„		
38	1/6	4/5/17	UNIT - 6 CDMA technology	„		
39	2/6	5/5/17	CDMA overview	Board, chalk, duster		
40	3/6	5/5/17	CDMA channel concept	„		
41	4/6	6/5/17	Generation of different channels	Projector , Board, chalk, duster		
42	5/6	6/5/17	CDMA operations.	„		
43	6/6	11/5/17	Comparison between CDMA and GSM architectures.	„		
44	1/5	12/5/17	UNIT - 7 Wireless Modulation techniques and Hardware	„		
45	2/5	12/5/17	Characteristics of air Interface & Path loss models	„		
46	3/5	13/5/17	Wireless coding techniques	„		
47	4/5	13/5/17	Digital modulation techniques - OFDM	„		
48	5/5	18/5/17	UWB radio techniques, Diversity techniques & Typical GSM Hardware	„		
49	1/6	19/5/17	UNIT - 8 Introduction to wireless LAN 802.11X technologies	Projector , Board, chalk, duster		
50	2/6	19/5/17	Evolution of wireless LAN technology	„		
51	3/6	20/5/17	Introduction to 802.15X technologies in PAN - Application and architecture Bluetooth	„		
52	4/6	20/5/17	Introduction to Broadband wireless MAN, 802.16X technologies	„		
53	5/6	25/5/17	Wireless MAN	„		

54	6/6	26/5/17	Applications & Revision	„		
55	-	27/5/17	Revision and Question Paper Discussion	Board, chalk, duster		
56	-	27/5/17	Revision and Question Paper Discussion	„		

Signature of faculty

Signature of HOD

#132, AECS Layout, IT Park Road, Kundalahalli, Bangalore – 560 037  
T:+9180 28524466 / 77

CMR INSTITUTE  
OF TECHNOLOGY



Session wise- Course Plan

Department of ECE

SEMESTER	: 8	NAME OF THE FACULTY	: Mr. Harsha B. K.
BRANCH	: ECE	DATE OF COMMENCEMENT	: 13.02.2017
SUBJECT	: Network Security	DATE OF CLOSING	: 20.05.2017
SUBJECT CODE	: 10EC832	CLASS STRENGTH	: 200[A, B, C & D]
NO OF HRS/WK	: 5	TOTAL HRS	: 59

Class #	Chapter no (No of hrs planed for the chapter)	DATE	Topics planned for the session	Teaching Aids	Assignments/ Tests planned for the chapter	Topics covered As per plan
1	1/1	16/02/2017	<b>Unit 1:</b> Introduction, Services	Board, chalk, duster, projector		
2	2/1	16/02/2017	Mechanisms and attacks,	„		
3	3/1	17/02/2017	The OSI security architecture	„		
4	4/1	17/02/2017	A model for network security.	„		
5	1/2	18/02/2017	<b>Unit 2:</b> Symmetric Cipher Model	„		
6	2/2	23/02/2017	Substitution Techniques,	„		
7	3/2	23/02/2017		„		
8	4/2	02/03/2017	Transposition Techniques	„	Assignment-1	
9	5/2	02/03/2017		„		
10	6/2	09/03/2017	Simplified DES	„		
11	7/2	09/03/2017		„		
12	8/2	10/03/2017	Data encryption standard (DES)	„		
13	9/2	10/03/2017	The strength of DES	„		

14	10/2	11/03/2017	Differential and Linear Cryptanalysis	"		
15	11/2	16/03/2017	Block Cipher Design Principles and Modes of Operation,	"		
16	12/2	16/03/2017		"		
17	13/2	17/03/2017	Evaluation Criteria for Advanced Encryption Standard, The AES Cipher	"		
18	14/2	17/03/2017		"		
19	1/3	18/03/2017	<b>Unit 6:</b> Intruders,	"		
20	2/3	23/03/2017		"		
21	3/3	23/03/2017	Intrusion Detection,	"		
22	4/3	24/03/2017		"		
23	5/3	24/03/2017	Password Management	"	IAT-1	
24	6/3	31/03/2017		"		
25	1/4	31/03/2017	<b>Unit 3:</b> Principles of Public-Key Cryptosystems	"		
26	2/4	01/04/2017	The RSA algorithm	"		
27	3/4	01/04/2017		"		
28	4/4	06/04/2017	Key Management,	"		
29	5/4	06/04/2017	Diffie - Hellman Key Exchange,	"		
30	6/4	07/04/2017		"		
31	7/4	07/04/2017	Elliptic Curve Arithmetic,	"		
32	8/4	08/04/2017		"		
33	9/4	13/04/2017	Authentication functions	"		
34	10/4	13/04/2017	Hash Functions.	"		
35	1/5	20/04/2017	<b>Unit 7:</b> Viruses and Related Threats	"	Assignment-2	
36	2/5	20/04/2017		"		
37	3/5	21/04/2017		"		
38	4/5	21/01/2017		"		
39	5/5	22/04/2017	Virus Countermeasures	"		
40	6/5	27/04/2017		"		
41	7/5	27/04/2017		"		
42	1/6	28/04/2017	<b>Unit 4:</b> Digital signatures,	"		
43	2/6	28/04/2017		"		
44	3/6	04/05/2017	Authentication Protocols,	"		
45	4/6	04/05/2017		"		
46	5/6	05/05/2017		"	IAT-2	
47	6/6	05/05/2017	Digital Signature Standard	"		
48	7/6	11/05/2017		"		
49	1/7	11/05/2017	<b>UNIT 5:</b> Web Security Consideration	"	Assignment-3	
50	2/7	12/05/2017	Security socket layer (SSL) and Transport layer security	"		
51	3/7	12/05/2017		"		
52	4/7	13/05/2017		"		
53	5/7	18/05/2017	Secure Electronic Transaction	"		
54	1/8	18/05/2017	<b>Unit 8:</b> Firewalls Design Principles,	"		
55	2/8	19/05/2017		"		
56	3/8	19/05/2017		"		
57	4/8	20/05/2017	Trusted Systems.	"		
58	5/8	20/05/2017		"	IAT-3	

Syllabus for Internal Assessment Test (IAT)\*

T1 (1, 2, 6)	Class # 01 – 24
T2 (3, 7)	Class # 25 – 41
T3 (4, 5, 8)	Class # 42 – 60

\* See calendar of events for the schedules of IATs.

**Literature:**

Book Type	Code	Author & Title	Publication info	
			Edition & Publisher	ISBN #
Text Book	TB	Cryptography and Network Security,(PRICIPLES AND PRACTICES) William Stalling,	Pearson Education, 2003.	81-203-2385-8
References	RB1	Cryptography and Network Security, Behrouz A. Forouzan,	TMH, 2007.	978-0-07-066046-5
References	RB2	Cryptography and Network Security, Atul Kahate,	TMH, 2003.	81-203-1278-3

**Note:** *From time to time, assignments will be posted on*

[https://sites.google.com/a/cmrit.ac.in/harsha\\_bk/](https://sites.google.com/a/cmrit.ac.in/harsha_bk/)

<https://sites.google.com/a/cmrit.ac.in/cmrdigitallibrary/calender-of-events>

Signature of faculty

Signature of HOD

#132, AECS Layout, IT Park Road, Kundalahalli, Bangalore – 560 037  
T:+9180 28524466 / 77

**CMR INSTITUTE  
OF TECHNOLOGY**



Session wise – Course Plan

**Department of Electronics and Communication**

SEMESTER : VIII  
BRANCH : ECE  
SUBJECT : MMC  
SUBJECT CODE: 10EC841  
NO OF HRS/WK: 5

NAME OF THE FACULTY : Eisha Akanksha  
DATE OF COMMENCEMENT : 16.02/2017  
DATE OF CLOSING : 24.05.2017  
CLASS STRENGTH :52/55  
TOTAL HRS : 52

Sessi on No	Chapter no (No of hrs planed for the chapter)	DATE	Topics planned for the session	Teaching Aids	Assign ments/ Tests planned for the chapter	Topics covered As per plan

<b>UNIT-1</b>	<b>16/2</b>	UNIT-1 INTRODUCTION, MULTIMEDIA INFORMATION REPRESENTATION, MULTIMEDIA NETWORK,  Multimedia applications, media types	Board, chalk, duster		
<b>UNIT-1</b>	<b>17/2</b>	media types, communication modes, network media types	„		
<b>UNIT-1</b>	<b>18/2</b>	Communication modes, network types			
<b>UNIT-1</b>	<b>23/2</b>	Multipoint conferencing, network QOS application			
<b>UNIT-2</b>	<b>2/3</b>	Introduction, digital principles			
<b>UNIT-2</b>	<b>9/3</b>	digital principles			
<b>UNIT-2</b>	<b>10/3</b>	Text, images			
<b>UNIT-2</b>	<b>11/3</b>	audio, video			
<b>UNIT-3</b>	<b>16/3</b>	Introduction, Compression principles			
<b>UNIT-3</b>	<b>17/3</b>	Text compression			
<b>UNIT-3</b>	<b>18/3</b>	Image compression			
<b>UNIT-4</b>	<b>23/3</b>	Introduction, audio compression,			
<b>UNIT-4</b>	<b>24/3</b>	DPCM. ADPCM			
<b>UNIT-4</b>	<b>31/3</b>	APC, LPC, video compression,			
<b>UNIT-4</b>	<b>1/4</b>	Video compression principles			
<b>UNIT-4</b>	<b>6/4</b>	H.261, H.263,			
<b>UNIT-4</b>	<b>7/4</b>	MPEG ,MPEG-1,			
<b>UNIT-4</b>	<b>8/4</b>	MPEG-2,			
<b>UNIT-5</b>	<b>13/4</b>	MPEG-3			
<b>UNIT-5</b>	<b>20/4</b>	Introduction, LAN,Ethernet,			
<b>UNIT-5</b>	<b>21/4</b>	Token Ring, Bridges, FDDI,			
<b>UNIT-6</b>	<b>22/4</b>	High Speed LAN, LAN protocol			
<b>UNIT-6</b>	<b>27/4</b>	Introduction, IP datagram, Fragmentation			

	<b>UNIT-6</b>	<b>28/4</b>	IP address, ARP			
	<b>UNIT-6</b>	<b>4/5</b>	RARP, QoS Support,			
	<b>UNIT-6</b>	<b>5/5</b>	IPV8			
	<b>UNIT-7</b>	<b>11/5</b>	Introduction, Cell format			
	<b>UNIT-7</b>	<b>12/5</b>	Switch, protocol architecture			
	<b>UNIT-7</b>	<b>13/5</b>	ATMLAN			
	<b>UNIT-8</b>	<b>18/5</b>	Introduction, TCP/IP,			
	<b>UNIT-8</b>	<b>19/5</b>	TCP,UDP			
	<b>UNIT-8</b>	<b>20/5</b>	, RTP, RCTP			

Signature of faculty

Signature of HOD